Amend claim 14 as follows:

14. (Amended) A method for forming a field effect transistor, comprising the steps of:

providing a region of semiconductor material doped a first conductivity type;

forming a source of opposite conductivity type and a drain of opposite conductivity type, both disposed in said region of semiconductor material and separated by a channel region;

doping said channel region with a first dopant to form a first doped region of opposite conductivity type;

doping said channel region with a second dopant to form a second doped region underlying the first doped region of said opposite conductivity type, said second doped region having a lower dopant concentration than said first doped region, said second doped region being the primary conduction channel between said source and said drain [implanting a first dopant in a subsurface channel region; forming a gate over the subsurface channel region; and implanting a second dopant in a source/drain region adjacent to the subsurface channel region].

REMARKS

Claims 1, 3, 7 and 14 have been amended and claim 2 has been cancelled without prejudice. Accordingly, claims 1 and 3 to 14 remain active in this application.

Claim 1 to 4 and 7 to 11 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bindal (U.S. 5,548,148). The rejection is respectfully traversed.

Claim 1 requires a channel region having a first doped region of opposite conductivity type and a second doped region underlying the first doped region of the opposite conductivity type, the second doped region having a lower dopant concentration than the first doped region, the second doped region being the primary conduction channel between the source and the drain.

No such structure is taught or suggested by Bindal either alone or in the combination as claimed. Note that Bindal at column 1, lines 51 to 54, that "[a]n arsenic (As) compensated boron implant is provided in the N-channel MOSFET. A boron (B) compensated arsenic implant is provided in the P-channel MOSFET.". Since boron and arsenic are of opposite conductivity types, it follows that the terms of claim 1 are not met and that the final device of Bindal is quite different in structure from the device described and claimed in the subject application.

It follows that claims 3 and 4 which depend from claim 1 also define patentably over Bindal for at least the reasons set forth above with reference to claim 1.

Claim 7 contains the same features discussed above with reference to claim 1 except that they are presented with reference to a plurality of devices. Accordingly, the arguments presented as to claim 1 apply as well to claim 7.

Claim 8 to 11 depend from claim 7 and therefore define patentably over Bindal for at least the reason presented above with reference to claim 7.

Claim 14 contains the same features discussed above with reference to claim 1 except that they are presented in method format. Accordingly, the arguments presented as to claim 1 apply as well to claim 14.

Claims 15 to 16 depend from claim 14 and therefore define patentably over Bindal for at least the reasons presented above as to claim 14.

Claims 6 and 13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bindal in view of Jain (U.S. 4,949,136). The rejection is respectfully traversed.

Claim 6 depends from claim 1 and claim 13 depends from claim 7. Accordingly, these claims define patentably over these references for at least the reasons presented above with

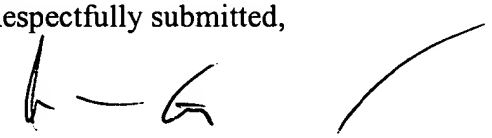
reference to claims 1 and 7 since Jain fail to overcome the deficiencies in Bindal as demonstrated above.

Claims 5, 12 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bindal in view of Miller et al. (U.S. 4,684,404). The rejection is respectfully traversed.

Claims 5, 12 and 17 depend from claims 1, 11 and 14 respectively. Accordingly, the argument presented above with reference to claims 1, 11 and 14 applies as well to these claims since Miller et al. fails to overcome the deficiencies in Bindal as demonstrated above.

In view of the above remarks, favorable reconsideration and allowance are respectfully requested.

Respectfully submitted,



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